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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,978	06/09/2005	Herbert Meyerle	S118.12-0005	1345

27367 7590 08/07/2008
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EXAMINER

KLEIN, GABRIEL J

ART UNIT	PAPER NUMBER
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3641

MAIL DATE	DELIVERY MODE
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08/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,978	Applicant(s) MEYERLE, HERBERT	
	Examiner GABRIEL J. KLEIN	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 30 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/9/2005 and 9/14/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, Claims 1-29 in the reply filed on June 3, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 30-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 3, 2008 (see above for explanation why election was made without traverse).

Oath/Declaration

It is the opinion of the Office that the oath, as submitted, is illegible. Please provide a legible oath.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-7, 10, 12, 17, 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitations "the firing energy", "the firing transducer", and "energy barrier" in lines 1-3. There is insufficient antecedent basis for this limitation in

the claim. For purposes of examination the Office will interpret "the firing energy" as "a firing energy", and likewise for the other limitations.

Claim 6 recites the limitations "the firing energy", "the firing transducer", and "energy barrier" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination the Office will interpret "the firing energy" as "a firing energy", and likewise for the other limitations.

Claim 7 recites the limitation "the firing transducer" in line 1. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination the Office will interpret "the firing transducer" as "a firing transducer".

Claim 10 recites the limitation "the stored and received data" in line 2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination the claimed will be interpreted as stating "stored and received data" in lieu of "the stored and received data".

Claim 10 recites the limitation "the stored and received data" in line 2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination the claimed will be interpreted as stating "stored and received data" in lieu of "the stored and received data".

Claim 12 recites the limitation "the memory" in line 2. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination the claimed will be interpreted as stating "a memory" in lieu of "the memory".

Claim 17 recites the limitation "the firearm" in line 2. There is insufficient antecedent basis for this limitation in the claim. This term will be interpreted as stating "a firearm" since the claim does not make sense as written by Applicant.

Claim 24 recites the limitation "the authentication interface" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. The Office will interpret this term as stating "an authentication interface".

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 29 is rejected under 35 U.S.C. 101 because the claim does not define statutory subject matter. Specifically, the claimed method does not include any method steps, and therefore is not considered a method (process).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Miles (6283034).

In reference to claim 1, Miles discloses an apparatus for the firing of a cartridge for firearms, wherein the apparatus is arranged within the cartridge, having:

- an interface capable of communicating with an apparatus which is arranged out of the cartridge (figure 2, element 42);
- a control means (figure 2, element 32 or 33; column 6, lines 38-44; column 7, lines 55-67; and column 9, lines 2-11); and
- a security means which can be released by a signal transmitted from the control means (inherently part of the firing circuit since the arming circuit only allows energy from the battery to reach the primer upon verification of the correct arming signal. Miles remains silent as to the exact structure of the security means (i.e. switch, transistor, etc), but said security means must be part of the firing circuit since power is only directed to the primer from the battery when the arming circuit allows. Thus, the security means is whatever component of the firing circuit that is operated by the arming circuit in order to allow power to reach the primer; column 6, lines 38-44; column 7, lines 55-67; and column 9, lines 2-11).

In reference to claim 2, Miles inherently discloses that the security means is an energy barrier. This is supported by the explanation above that the firing circuit does not provide power to the primer until directed to by the arming circuit. Thus, the security

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means (see above) must be an energy barrier of some sort (be it an open switch or transistor pin or any other circuitry component that keeps energy from reaching the primer) in order to keep power from reaching the primer.

In reference to claim 3, Miles discloses that the apparatus comprises a firing transducer (figure 1, element 22).

In reference to claim 4, Miles discloses that the firing transducer effects a firing of the cartridge depending on a firing energy supplied over the interface. It should be appreciated that the firing transducer will not fire unless the interface receives an energy signal from the apparatus that is arranged out of the cartridge.

In reference to claim 5, Miles discloses that a firing is supplied to the firing transducer depending on the releasing of the security means or an energy barrier (set forth above).

In reference to claim 6, Miles discloses that a firing energy is inhibited, blocked, and/or passed by the firing transducer by the security means or an energy barrier (set forth above).

In reference to claim 7, Miles discloses that a firing transducer can be permanently inactivated by a respective outer impact (the outer impact being the firing pin striking the cartridge; column 5, lines 1-6).

In reference to claim 8, Miles inherently discloses that the apparatus comprises a memory. This is inherently so since the verification circuit of the arming circuit must verify if the received code is correct, and that this task must be accomplished through a comparison of the received code with a stored code.

In reference to claim 9, Miles discloses that the data stored can be at least partially read from the memory. This is inherently so since the code can be user programmed, and since the arming circuit must compare a received code to a stored code in order to effect firing.

In reference to claim 10, Miles discloses that the control means compares stored and received data (column 7, lines 24-43).

In reference to claim 11, Miles discloses that the control means only releases the security means and thus enables firing if the stored and received data match (set forth above).

In reference to claim 12, Miles discloses that the data used for comparing cannot be read from a memory in an unauthorized manner (column 7, lines 24-43).

In reference to claim 13, Miles inherently discloses that the apparatus comprises at least one chip or microchip. This is inherently so since the circuitry contained within the apparatus must be packaged within an ammunition cartridge for a standard handheld firearm, and since said circuitry includes multiple circuits which could only be made small enough to fit in such a space through the use of a chip or microchip (column 5, lines 60-62).

In reference to claim 14, Miles discloses that the apparatus is a percussion cap or is integrated in such (column 5, lines 36-52).

In reference to claim 15, Miles discloses that the apparatus is protected against attacks by electrical, mechanical, chemical, thermal energy and/or radiation (column 5, lines 2-6 and 25-35).

In reference to claim 16, Miles discloses that such attacks lead to a permanent destruction of the capability to fire the cartridge (set forth above).

In reference to claim 27, Miles discloses munitions for firearms, characterized in that the munitions comprise a securing device which can be released by transmitting of predetermined data (set forth above).

In reference to claim 28, Miles discloses an apparatus for the firing of a cartridge for firearms, wherein the apparatus is arranged within the cartridge, having an interface for communicating with an apparatus which is arranged out of the cartridge, a control means and a security means which can be released by a signal transmitted from the control means (set forth above).

In reference to claim 29, Miles discloses a method for securing cartridges for firearms, wherein the cartridge can be released by transmitting predetermined data (set forth above).

Claims 17-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Brosow (6760992).

In reference to claim 17, Brosow discloses an apparatus for releasing a cartridge for firearms, wherein the apparatus is arranged within a firearm, having an operating device calculating releasing data (figure 2B, element 206), and a cartridge interface for communicating with a cartridge and for transmitting the releasing data (figure 2B, the interface of the cartridge with element 206; column 6, lines 64-67; and column 7, lines 1-49).

In reference to claim 18, Brosow discloses that the apparatus comprises at least one data interface and/or at least one authentication interface (between the non-volatile memory and the logic unit; figure 2B).

In reference to claim 19, Brosow discloses that the apparatus comprises a control (figure 2B, element 15).

In reference to claim 20, Brosow discloses that the operating device can be divided such that at least one part of the operating device is assigned to the firearm (figure 2B).

In reference to claim 21, Brosow discloses that the apparatus comprises a trigger sensor (figure 1a, element 17).

In reference to claim 22, Brosow discloses that the apparatus comprises a data memory (figure 2B, non-volatile memory).

In reference to claim 23, Brosow discloses that the apparatus comprises a firing pulse generator (column 6, lines 54-63; and column 7, lines 42-49).

In reference to claim 24, Brosow discloses that an authentication interface is a transponder interface (figure 2B).

In reference to claim 25, Brosow discloses that the operating device and/or the data memory are such formed that data can be stored and/or processed securely against unauthorized reading and manipulation (column 1, lines 15-37; and column 2, lines 12-42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brosow in view of Miles.

Brosow discloses an apparatus for securing the firing of a shot from a firearm as set forth above. More specifically, Brosow discloses two particular embodiments of said apparatus. The first embodiment comprises a firearm having a firing pin which impacts a standard round of ammunition in order to fire said round. The release of the firing pin being controlled by a circuit mounted in the grip portion of the firearm, said circuit only activating said firing pin once an authorization code is received (by the circuit) from a remote transponder located outside of the firearm (columns 5 and 6).

In contrast, the second embodiment does not utilize a firing pin for the firing of ammunition from a firearm. The second embodiment comprises an electrically initiated ammunition round that includes a non-volatile memory which stores an ammunition identification code, said round being activated by an electrical pulse generated by a circuit within the grip portion of the firearm. The operation of the second embodiment is similar to that of the first embodiment in that the circuit within the grip portion must still receive an authorization code from a remote transponder located outside of the firearm, but the second embodiment also includes an additional step before said circuit allows

firing of the round. This additional step includes the reading of the ammunition identification code by the circuit in the grip portion, and a comparison of the ammunition identification code and the authorization code. If this comparison is in compliance with the set criteria for firing then the circuit in the grip portion sends a pulse to the round thereby firing said round (columns 6-8).

Thus, it should be appreciated that Brosow does disclose a device for the firing of a cartridge for firearms, wherein the apparatus is arranged within the cartridge, having an interface for communicating with an apparatus which is arranged out of the cartridge, and an apparatus for releasing a cartridge for firearms, wherein the apparatus is arranged within the firearm, having an operating device calculating releasing data, and a cartridge interface for communicating with a cartridge and for transmitting the releasing data (all set forth above). However, neither embodiment disclosed by Brosow discloses an apparatus arranged within the cartridge which includes a control means and a security means which can be released by a signal transmitted by the control means.

Miles teaches that it is known to provide a device for the firing of a cartridge for firearms, wherein the apparatus is arranged within the cartridge, having an interface for communicating with an apparatus which is arranged out of the cartridge, a control means, and a security means which can be released by a signal transmitted from the control means (set forth above; see rejection of claim 1 over Miles). Thus, it should be appreciated that it would be obvious to a person of ordinary skill in the art to provide the first embodiment of Brosow with a cartridge as taught by Miles (in lieu of a standard

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round) as an alternate means for including the additional step of verifying an ammunition code (Brosow discloses such a means in the second embodiment). It should be appreciated that such a modification would provide the first embodiment of Brosow with the ability to verify an ammunition code without requiring that the firearm is of a type that does not include a firing pin, since the cartridge of Miles is activated using a standard firing pin. Thus, using the cartridge of Miles in the first embodiment firearm of Brosow would provide a firearm that would include a circuit in the grip portion, said circuit receiving an authorization code from a remote transponder (located outside of the firearm) and a cartridge identification code from the transceiver in the cartridge. Further, said circuit would compare the two codes, and upon verification of the two codes, would send a signal to the cartridge to effect firing of the cartridge (taught by Miles). It should be appreciated that such a modification would require only routine skill in the art since Brosow provides the basis for such a chain of events (in the second embodiment), and since the cartridge of Miles is known to be capable of communication with an apparatus arranged out of the cartridge (in this case the grip portion circuit). In essence, such a modification constitutes a mere substitution of ammunition, and the combining of concepts between the two embodiments of Brosow. Further, a person of ordinary skill in the art would be motivated to make such a modification since it would allow for the first embodiment of Brosow to benefit from the additional security associated with the second embodiment of Brosow, and since since all of the elements are known in the prior art and could be combined in a manner that would not effect there respective functions, and further since such a modification would yield predictable

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results with only minor structural changes. In fact, the only structural modification (besides the swapping of cartridges) would be the inclusion of a second transceiver within the grip portion circuit, for communicating with the cartridge, and the first embodiment circuit of Brosow would need to be modified to compare the codes as in the second embodiment of Brosow. It should be appreciated that such a simple modification is well within the abilities of a person of ordinary skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GABRIEL J. KLEIN whose telephone number is (571)272-8229. The examiner can normally be reached on Monday through Friday 7:15 am to 3:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GJK

/J. Woodrow Eldred/

Primary Examiner, Art Unit 3641